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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/579,673

05/18/2006

Shouichi Nakao

65341.00005

9236

32294

7590

10/03/2008

SQUIRE, SANDERS & DEMPSEY L.L.P.

8000 TOWERS CRESCENT DRIVE

14TH FLOOR

VIENNA, VA 22182-6212

EXAMINER

BINDA, GREGORY JOHN

ART UNIT

PAPER NUMBER

3679

MAIL DATE

DELIVERY MODE

10/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,673

Applicant(s)

NAKAO ET AL.

Examiner

Greg Binda

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 8-18, 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Election/Restrictions

1. Applicant's election without traverse of the constant velocity joint shown in Figs. 1-13 (Species I) in the reply filed on July 25, 2008 is acknowledged.
2. Claims 8-18, 20 & 21 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 25, 2008.

Specification

3. The disclosure is objected to because the paragraph at page 15, lines 5+ is nonsensical. The paragraph purports to define the term "keystone state" but does so simply by defining the it as a state due to the keystone effect, i.e. the keystone effect.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 2-4 & 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. Claim 2 recites the limitation, "said all rolling elements . . . are held in a keystone state". It is not clear what constitutes a "keystone state" since the term is nonsensically defined in the specification. See item 3 above.

b. Claims 3 & 19 recite the limitation, "a radial clearance defined between said inner circumference wall surface and outer circumference surfaces of said rolling elements". It is unclear how such a clearance can be present given that the specification expressly discloses these surfaces as being in contact, i.e. without clearance between them. See, for example, page 3, line 27; page 15, line 23 and page 16, line 27.

c. The term "several" in claim 4 is a relative term which renders the claim indefinite. The term "several" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 5-7 & 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Goto et al, US 5,989,124 (Goto). Fig. 1 shows a tripod constant velocity joint comprising:

a tubular outer member 1 for connection to a transmission shaft, said tubular outer member having a plurality of guide grooves 2 defined in an inner wall surface thereof which are spaced from each other and extend in an axial direction of the tubular outer member;

an inner member 4 for connection to another transmission shaft, said inner member being disposed in an opening defined in said tubular outer member; said inner member having a plurality of trunnions 5 projecting respectively into said guide grooves;

a ring-shaped roller 7 fitted over each of said trunnions and held in contact with surfaces 3 defining said guide grooves;

a plurality of rolling elements 6 rollingly interposed between each of said trunnions and said roller;

said roller having an inner circumferential wall surface n ;

a one-sided flange 9 (see Fig. 7) projecting radially from an axial end of said inner circumferential wall surface; and

a holder 8 mounted in an opposite axial end of said inner circumferential wall surface and holding said rolling elements;

wherein Figs. 26-28 show that before said holder is mounted in said roller, all rolling elements are inserted altogether as an annular array into said roller and placed onto said inner circumferential wall surface in an axial direction of said inner circumferential wall surface from the axial end thereof remote from said one-sided flange, and are retained in place.

Fig. 28 shows all rolling elements 6 which are inserted into said roller 7 are held in a keystone state on said inner circumferential wall surface.

Fig. 26 shows a radial clearance (nominally indicated by the reference character 10a) is defined between said inner circumferential wall surface of said roller 72 and outer circumferential surfaces of said rolling elements 6.

Fig. 1 shows the holder comprises a washer 8.

Fig. 7 shows the one-sided flange comprises a flange 9 integrally formed with said roller 70.

Fig. 1 shows the one-sided flange is provided by a holder comprising at least a washer 8.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goto. Fig. 26 shows a radial clearance (nominally indicated by the reference character 10a), but does not expressly disclose the clearance in a range from several μm to several tens of μm . However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the clearance in a range from several μm to several tens of μm , since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Kulling*, 897 F.2d 1147, 14 USPQ2d 1056.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (571) 272-7077. The examiner can normally be reached on M-F 9:30 am to 7:00 pm with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Greg Binda/
Primary Examiner
Art Unit 3679